

ASIAN DEVELOPMENT BANK

TAR: OTH 36584

TECHNICAL ASSISTANCE

(Financed by the Poverty Reduction Cooperation Fund)

FOR

**DEVELOPING TOOLS FOR ASSESSING THE EFFECTIVENESS
OF ADB OPERATIONS IN REDUCING POVERTY**

December 2002

ABBREVIATIONS

ADB	–	Asian Development Bank
CSP	–	country strategy and program
DFID	–	Department for International Development of the Government of the United Kingdom of Great Britain and Northern Ireland
DMC	–	developing member country
MDG	–	millennium development goal
ERDI	–	Policy Research and Development Indicators Division (Asian Development Bank, Economics and Research Department)
MPIA	–	monitoring and poverty impact assessment
PRF	–	Poverty Reduction Cooperation Fund
PRPA	–	poverty reduction partnership agreement
TA	–	technical assistance

GLOSSARY

analytical protocol	–	Analytical protocols, as understood in this paper, are formatted Microsoft Excel worksheets containing simple country-specific economic models, which can be easily customized for assessing the impact of economic change on households' income distribution.
metadata	–	Metadata is traditionally understood as "data about data." In household surveys, metadata includes (i) information on sampling and data collection methodologies, (ii) the objectives of the survey, (iii) the implementing agency, (iv) the definition of variables and formats, (v) information on dissemination policy and confidentiality issues, and (vi) other technical information required for secondary users to use the dataset.
principal components analysis	–	Principal components analysis is a statistical technique that exploits redundancy in multivariate data, enabling identification of patterns in the variables and generation of a subset of variables without significant loss of information. In poverty analysis, the method is commonly applied to generate an index of poverty at the household level, that is based on data collected on ownership of assets, not defined in terms of monetary or financial values.
social accounting matrix	–	A social accounting matrix, as defined by the United Nations 1993 System of National Accounts, is a comprehensive, economywide data analytical framework whose purpose is to render a complete account of the interlinkages in a country at the meso-level.

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The Asian Development Bank (ADB) adopted poverty reduction as its overarching goal in 1999, and subsequently embraced the Millennium Development Goals (MDGs) as priority objectives. Both poverty reduction and fostering fulfillment of the MDGs are affirmed in ADB's Long-Term Strategic Framework (2001–2015)¹ and Medium-Term Strategy (2001–2005).² An important part of efforts to focus ADB's operations on poverty reduction has been to adapt established impact analysis practices. Efforts to adjust approaches to assess the impact of loans on poverty, prior to and after their implementation, and to develop and apply new methods, have met with mixed success. Resource and time constraints often limit monitoring and assessment of project impact on poverty to what is administratively required. The Poverty Reduction Cooperation Fund (PRF) established by the Department for International Development (DFID) of the Government of the United Kingdom provides an opportunity to pilot-test new approaches for poverty monitoring in selected developing member countries (DMCs), and to develop new tools and more systematic methods for assessing the effectiveness of ADB operations in reducing poverty.

2. The concept paper for the technical assistance (TA) was submitted to DFID on 13 August 2002. On 23 September 2002, DFID formally approved the proposal.³ In accordance with the PRF board paper,⁴ a peer review and project development team was established in October 2002, and the team provided inputs and recommendations for the design of the TA.⁵ The team broadly endorsed the proposal. The TA framework is presented in Appendix 1.

II. ISSUES

3. ADB and other national and international institutions seek to design projects and identify country- or sector-level strategies offering the greatest reduction of poverty. Analytical techniques are used to assess the poverty impact of projects and programs, and to identify the most effective ways of achieving sustained reductions in poverty. Although ADB and its partner organizations in DMCs have gained much experience in such analysis, the understanding of the mechanisms that link project and program outputs to sustained reductions in poverty is still partial and the measurement of the poverty impact of interventions is often inadequate. The TA focuses on the development of tools for monitoring and understanding the poverty impact at various levels, suitable for use in operations by ADB and DMC staff developing and executing ADB-financed interventions. Understanding the impact of ADB operations at the country level requires analysis at sector and project levels. At the same time, understanding the overall poverty impact of discrete policy or project initiatives at the local level requires study at the sector or country level. In assessing the effectiveness of ADB aid, efforts must be considered in the broader context of overall development efforts in the country and with the recognition that ADB is one of many influences in the development arena. Accordingly, the approach taken in the TA will include poverty analysis at various levels (e.g. household, community, and sector), focusing on providing the information and analytical tools needed to define and understand the relationship between poverty reduction efforts and outcomes at the different levels.

¹ ADB. 2001. *The Long-Term Strategic Framework of the Asian Development Bank (2001-2015)*. Manila.

² ADB. 2001. *Medium –Term Strategy*. Manila.

³ The TA first appeared in *ADB Business Opportunities* (Internet edition) on 26 September 2002.

⁴ ADB. 2002. *Poverty Reduction Cooperation Fund*. Manila.

⁵ The peer review and project development team comprised sector and poverty specialists from regional departments; concerned resident missions; members of teams that prepare country strategies and programs (CSPs); and thematic poverty specialists from the Regional and Sustainable Development Department, Operations Evaluation Department, and the Economics and Research Department.

4. Providing ADB staff and partners in DMCs with accurate and easy-to-use data collection and analytical tools can improve the efficiency of poverty analysis while easing the operational burden of carrying out poverty monitoring and assessment activities. Such tools can be applied to strengthen the development and implementation of country strategies and programs (CSPs) and poverty reduction partnership agreements (PRPAs), and will facilitate accountability. This will enable ADB and national agencies in DMCs to sharpen their understanding of the effects of projects and programs on poverty, and to focus their efforts on the most effective interventions.

5. ADB project implementation sometimes suffers from inadequate attention and resources being applied to distinct aspects of monitoring. Project management teams can get caught up in monitoring financial and other implementation indicators, while neglecting to monitor impact indicators and carefully analyze the causal links between ADB-financed activities and poverty outcomes of greater long-term interest (e.g., indicators of poverty impact and aid effectiveness). Efforts to improve monitoring and poverty impact assessment (MPIA) may suggest reassessment of the resource allocation between country- and sector-level poverty diagnosis and research, project design, and monitoring activities. ADB can make a valuable contribution in MPIA by helping to make it an integral part of local decision-making processes. Accordingly, ADB TA in MPIA should focus on building national capacities. Developing tools for easy and more systematic poverty monitoring will be key in improving the capacity of ADB and DMCs to assess aid effectiveness.

III. THE TECHNICAL ASSISTANCE

A Purpose and Output

6. The goal of the TA is to enhance ADB's contribution to poverty reduction in DMCs. The purpose of the TA is to adapt existing approaches and pilot test customized poverty monitoring and analytical tools to enable better understanding and measurement of the underlying factors and mechanisms driving changes in the incidence and severity of poverty in selected DMCs. The TA will develop these tools within the framework of the PRPAs, CSPs, and ongoing ADB projects or programs in selected sectors and countries. The TA will focus on some of the major ADB borrowing countries (although tools will be designed with a view to general applicability). The tools and approaches developed through the TA will foster better identification, design, and monitoring of poverty reduction programs and projects, and thereby improve in the effectiveness of ADB-financed poverty reduction efforts throughout DMCs. The implications of lessons learned regarding the process, structure, and resource requirements for carrying out poverty impact assessment will be reviewed in the final TA report. Several other TAs are being implemented with related scope and objectives. These other efforts will be taken into account to ensure sharing of knowledge and material and to avoid any duplication of effort.

7. The specific outputs of the TA will be (i) a survey data depository that will provide easy access to relevant statistical data for poverty analysis; (ii) a review of poverty measures and analysis used in final or draft PRPAs and corresponding CSPs; (iii) innovative survey data collection and processing tools to enable more cost-effective collection of baseline and follow-up data at project and sector levels; (iv) poverty and inequality data generated at disaggregated geographic levels (small areas); (v) easy-to-use analytical protocols to model poverty and distributional impacts of ADB-financed initiatives; and (vi) workshops on poverty monitoring and impact assessment techniques for DMC and ADB staff.

B. Methodology and Key Activities

8. Current efforts to enhance the poverty focus of country strategies and loan evaluations make insufficient use of available data to understand poverty in the context of specific countries and projects. This results from the high fixed costs of initially gathering and understanding primary data, tight time schedules faced in loan preparation, and lack of easy-to-use analytical tools. Limited access to primary (micro-level) data by secondary analysts, limited research capacity, lack of incentives, and conditions in DMCs that are not conducive to carrying out thorough analysis, often prevent survey data from being used to generate relevant knowledge to policy. Accordingly, the first activity will involve working closely with national statistical offices, line ministries, funding agencies and nongovernment organizations collecting statistical information to develop a data depository. The main mandate of the depository will be to gather survey data sets and ensure their proper documentation to ease access. This will be more than a simple collection and storage exercise, and will include documentation, quality control, and standardization of data and metadata. By improving the documentation and preservation of survey data, the depository will foster wider dissemination and application of survey data in poverty analysis and monitoring, and provide ADB staff with a mechanism for sharing good practices and preserving institutional memory in data collection and poverty monitoring.

9. The second activity will review PRPAs and CSPs and will result in brief reports outlining the poverty measures and analyses used in individual DMCs. A summary of the reports will review (i) the methodology used in measuring poverty in DMCs, (ii) the analysis applied in formulating PRPAs and CSPs, and (iii) the poverty monitoring arrangements incorporated in PRPAs and CSPs. The review will provide recommendations on ways of improving the analysis and monitoring of poverty in PRPAs and CSPs with due consideration of practical constraints faced by analysts.

10. Four subsequent activities will develop and disseminate a number of poverty monitoring and analytical tools intended as inputs into the preparation of poverty strategies and loans. These cover small area estimation techniques, poverty monitoring survey instruments, and sector-specific analytical models for poverty impact assessment. The final activity involves dissemination workshops at ADB and in selected DMCs.

11. In concert with another ongoing ADB TA,⁶ the TA will compile spatially disaggregated data (small area estimates). Poverty statistics at the national or other aggregated levels are often unsuitable for impact assessment of specific projects and policies. Poverty data valid at the local level can be used to develop local poverty profiles and derive information on past poverty dynamics. This information can be applied in project and strategy formulation and assessment to enhance their empirical foundations.

12. Poverty monitoring survey instruments will be designed, including the development and implementation on a pilot basis of household- and community-level questionnaires and poverty monitoring surveys. The objective is to develop practical alternatives to the time-consuming and expensive collection of income and expenditure data for assessing poverty. The proposed

⁶ ADB. 2002. *Poverty Mapping in Selected Developing Member Countries*. Manila. The small-scale regional technical assistance (TA 6042), was approved on 22 September 2002, and is administered by the Development Indicators and Policy Research Division (ERDI). Data will be generated for Pakistan and will endeavor to gather available data elsewhere.

survey instruments will be based on easy-to-collect poverty predictors⁷ that are derived using multiple regression and principal component analysis.⁸ The key outputs of this component of the TA will be the development of cost-effective and rapid monitoring data collection instruments, along with recommended administrative procedures for cooperating with national agencies, sampling methods, standard questionnaires, data processing programs and manuals, and guidelines for statistical analysis and poverty assessment based on nonincome data.

13. Sector-specific analytical models to assess project and policy impact on poverty will be developed, principally through adaptation of existing partial and general equilibrium models. By sharpening the focus of existing models on poverty and distributional issues, models aim to enable more holistic assessment of the impact of projects, policies, and external events on distribution, poverty, and broader welfare. Partial equilibrium models to be adapted include demand or supply response analysis disaggregated across the poor and nonpoor, household models, and measures of market performance.⁹ General equilibrium modeling will recollect and adapt existing social accounting matrixes and computable general equilibrium models for selected DMCs, and update and customize models to examine particular sectors and identify distributional consequences of interventions in their broader economic context. When possible, models will be developed as user-friendly Microsoft Excel applications to foster integration of country data for impact assessment by analysts in ADB and DMCs, and will include user instructions, interpretation guidelines, and training material.

14. Sector and project analytical tools will be developed in the context of ongoing ADB operations to ensure operational relevance and suitability. The following mix of countries and sectors is proposed: (i) the People's Republic of China, for transport infrastructure; (ii) Indonesia, for education; (iii) Pakistan, for governance and finance; and (iv) Viet Nam, for agriculture and natural resource management.¹⁰ The selection reflects core areas of lending among the most active ADB borrowers. TA implementation will proceed in close cooperation with national agencies, with participation of national statistics offices being key for undertaking data collection and statistical capacity building project components. Other national agencies have been identified in each country for collaboration in poverty analysis work under the TA.

15. To assure proper dissemination and institutionalization of these data collection and analytical tools, activities will result in technical reports and manuals. These will be used to develop training material that will be used in workshops organized in four selected DMCs and at ADB headquarters. The TA team will prepare interim reports for the TA after the first year and a final report at the conclusion of the TA.

⁷ (ADB. 2001. *Handbook for Integrating Poverty Impact Assessment in the Economic Analysis of Projects*, Appendix 3, Box 3.4, page 64. Manila). Poverty predictors are easy-to-collect variables identified to be highly correlated with standard poverty measures through multivariate analysis.

⁸ The development of these tools will build on existing standard survey instruments such as the Core Welfare Indicators Questionnaire and Living Standards Measurement Studies (World Bank), the Multiple Indicators Clusters Survey (United Nations Children's Fund), the Demographic and Health Surveys (Macro International Ltd), etc.

⁹ This activity will follow the approach of Sadoulet and de Janvry. 1994. *Quantitative Development Policy Analysis*, Baltimore, MD: Johns Hopkins University Press, and will take into account work being undertaken at the World Bank (e.g., poverty impact analysis toolkit –<http://www.worldbank.org/poverty/psia/tools.htm>, and other initiatives).

¹⁰ Projects with which the activities of this TA will be coordinated are: Loan 1863 *Decentralized Basic Education Project* and related TAs that support this loan in Indonesia; loans 1898 and 1899 *Access to Justice* as well as other ongoing or soon to be approved TAs and loans in Pakistan; loan 1918 *Southern Sichuan Roads Development* and a number of other ongoing TAs, e.g., TA 3900—involving road infrastructure in People's Republic of China, and loan 1515 *Forestry Sector* in Viet Nam. Finalization of this list awaits formal concurrence by the involved executing agencies and ADB regional departments.

C. Cost and Financing

16. The total cost of the TA is estimated at \$600,000 equivalent, comprising \$367,000 in foreign exchange and \$233,000 equivalent in local currency cost. The PRF will finance the TA on a grant basis and ADB will administer it.

17. The TA will finance consultancy work; the implementation of monitoring surveys on a pilot basis; the acquisition of software and equipment; the production and dissemination of training and reference materials; and the organization of five workshops to present, review, and discuss TA outputs. The cost estimates and financing plan are presented in Appendix 2.

D. Implementation Arrangements

18. The Economics and Research Department's Development Indicators and Policy Research Division (ERDI) in ADB will implement the TA in close collaboration with other ADB departments, particularly with mission leaders in the proposed sector, and country pairs and poverty experts in resident missions and regional departments. Project and resident missions staff will be asked to identify and facilitate linkages with relevant national agencies and to advise to ensure operational relevance of the TA. Standing peer review and project development teams will ensure coordination and advice of ADB knowledge-based departments.

19. The TA will be carried out over a 24-month period starting in December 2002. Departments of statistics, planning, policy analysis, and implementing agencies in the sectors of the selected projects in the four DMCs will be consulted throughout TA implementation.

20. Project implementation will require 10 person-months of international and 26 person-months of domestic consultants, who will be recruited on an individual basis. Indicated areas of expertise required are (i) survey data processing (6 person-months of a domestic consultant); (ii) poverty analysis (1 person-month of an international consultant); (iii) applied microeconomic modeling (3 person-months of international and 8 person-months of domestic consultants); (iv) general equilibrium modeling (3 person-months of an international consultant); (v) sampling and survey methods (3 person-months of an international consultant); and (vi) household survey execution (12 person-months of domestic consultancy). ADB will engage the consultants in accordance with its *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. Outline terms of reference are in Appendix 3. Equipment purchases will be in accordance with ADB's *Guidelines for Procurement*.

21. TA outputs will be disseminated through workshops and later through the Internet for a broader audience. One workshop for ADB staff will be held at ADB headquarters, and four will be held in the selected DMCs so that representatives from relevant government agencies, nongovernment agencies active in poverty reduction initiatives, and researchers from other institutions can learn about the TA and review and discuss its outputs. All nonconfidential TA outputs will be made available on-line via the ADB web site.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$600,000 to be financed on a grant basis by the Poverty Reduction Cooperation Fund for Developing Tools for Assessing the Effectiveness of ADB Operations in Reducing Poverty, and hereby reports this action to the Board.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Goal</p> <p>Increase effectiveness of aid from the Asian Development Bank (ADB).</p>	<p>Higher impact of ADB lending on poverty.</p>	<ul style="list-style-type: none"> • In the short term: (i) review of country strategies and programs (CSPs) by Development Indicators and Policy Research Division (ERDI), and (ii) reports on the monitoring of the poverty reduction partnership agreements (PRPAs) by regional departments. • In the longer term, monitoring of the MDGs and other selected statistical indicators covered by ERDI's poverty and development indicators database. 	
<p>Purpose</p> <p>ADB and developing member countries (DMCs) apply new measurement and analytical tools to better understand and measure the underlying factors and mechanisms driving impact of project-, sector-, and country-level interventions on the incidence and severity of poverty.</p>	<p>Improved PRPA and CSP monitoring strategies implemented, i.e.,</p> <ul style="list-style-type: none"> • monitoring survey toolkits and analytical protocols available to all ADB staff and DMC agencies; and • use of these tools by staff in all regional departments at ADB. 	<p>Feedback from users of the tools and analytical protocols.</p>	<ul style="list-style-type: none"> • Productive cooperation between ERDI staff and staff from regional departments. • Cooperation from DMCs, and openness to change.
<p>Outputs</p> <p>1. Survey data depository.</p>	<ul style="list-style-type: none"> • Properly documented data sets available in the data depository. Target: 50 relevant data sets at completion of technical assistance (TA); if possible at least one for each DMC. • Guidelines on survey data documentation. 	<p>Annual report on the content of the data depository by its administrator (ERDI staff), and report on the number of users. A formal "data request form" will be designed, in order to properly record the use of data sets.</p>	<ul style="list-style-type: none"> • Not all countries are willing to release primary survey data. Cooperation from ADB regional departments will be crucial to facilitate the acquisition of primary data. • The submission of primary data collected under ADB TAs to the data depository must be institutionalized.

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
2. Brief reports outlining poverty assessment used in selected PRPAs and CSPs, and comprehensive review of poverty analysis and poverty monitoring measures applied in existing PRPAs.	All available PRPAs and corresponding CSPs reviewed.	Report by an international consultant.	None.
3. Small-area poverty estimates.	Small-area statistics available for selected DMCs.	Reporting by ERDI on the availability of poverty and inequality estimates at low geographic levels in a midterm report and in the TA completion report.	Access to requisite unit-level data for generating small-area poverty estimates, or access to small-area statistics generated from past poverty mapping work.
4. Analytical protocols.	Analytical protocols used by staff in all regional departments, and by counterpart agencies in DMCs.	<ul style="list-style-type: none"> • On-line availability of protocols in Microsoft Excel format, with users instructions (on ADB statistics website). • Number of downloads of these protocols (based on Office of External Relations' web usage report). • Feedback from users. 	Willingness to learn and adopt new techniques.
5. Poverty monitoring survey toolkits (baseline and follow-up surveys).	Use of data collection tools by ADB and DMCs.	<ul style="list-style-type: none"> • Feedback from users. • Number of tools provided by ERDI or downloaded from ADB statistics web site (based on ADB web master's monthly report on web site use). • Reports by the domestic consultants in household survey implementation. • Review mission by ERDI. 	Interest in using new techniques for baseline and follow-up surveys on a pilot basis. This will require identifying three "champions" (project officers) in ADB regional departments.
6. Five week dissemination workshops (one at ADB headquarters and four in the selected DMCs).	Number of participants: minimum target: 100 people (80 in DMCs, and 20 at ADB).	Assessment by participants.	Interest of ADB staff and DMC counterparts in learning new techniques.

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Activities</p> <p>1. Setting up a data depository for acquisition, documentation, and standardization of survey data sets.</p> <p>2. Review of PRPAs and CSPs for the corresponding DMCs.</p> <p>3. Generation or acquisition of small-area statistics for concerned DMCs.</p> <p>4. Development of analytical protocols, obtained by customizing existing models.</p> <p>5. Development and dissemination of data collection toolkits.</p> <p>6. Organization of the training workshops.</p>	<p>Start: December 2002 Completion: to become a permanent function of ERDI.</p> <p>Start: January 2003 Completion: April 2003</p> <p>Start: January 2003. Completion: December 2003 (small-area statistics available for at least three DMCs).</p> <p>Start: March 2003 Completion: July 2004</p> <p>Start: February 2003 Completion: July 2004</p> <p>Four successful training workshops (at least 25 participants each). Start: August 2004. Completion: November 2004</p>	<p>Midterm and completion report on the status and progress of all activities will be provided by ERDI. These reports will, among others, be based on</p> <ul style="list-style-type: none"> • consultants' reports, • assessment by ERDI staff, • feedback from users, • feedback from participants in the workshops, and • statistics on web site usage to be obtained from ADB's web master. 	<ul style="list-style-type: none"> • Availability of a domestic consultant in data processing qualified in data archiving. • Cooperation of data depositors in DMCs. <p>None.</p> <p>Cooperation from national and international agencies is assumed.</p> <p>Access to existing models (social accounting matrixes and partial/general equilibrium models). The scope of the project will not allow development of new general equilibrium models.</p> <ul style="list-style-type: none"> • Interest of ADB staff and DMC counterparts in learning new techniques. • Participants will have a minimum level of expertise in economics and statistics.
<p>Inputs</p> <ul style="list-style-type: none"> • ADB staff • DMC counterparts 	<ul style="list-style-type: none"> • Qualified consultants recruited on time (10 	<p>Midterm and completion reports by ERDI, based on</p>	<ul style="list-style-type: none"> • Active participation of ADB staff (ERDI and regional

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<ul style="list-style-type: none"> • International and domestic consultants • Primary survey data • Small-area poverty statistics • Software • Equipment 	<p>person-months of international and 26 person-months of domestic consultants, as per terms of references presented in appendix 3.</p> <ul style="list-style-type: none"> • Data, software, and equipment available at early stage of TA implementation. 	<ul style="list-style-type: none"> • An assessment of the consultant's reports, and • A review of technical papers, manuals, and other documents produced under the TA. 	<p>departments) is crucial. Staff from Operations Evaluation Department could also be key contributors.</p> <ul style="list-style-type: none"> • Availability of qualified consultants (particularly for modeling work).

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item^a	Foreign Exchange	Local Currency	Total Cost
1. Consultants			
a. Remuneration and Per Diem ^b			
i. International Consultants	160.0	0.0	160.0
ii. Domestic Consultants	0.0	78.0	78.0
b. International and Local Travel	40.0	0.0	40.0
c. Reports and Communications	15.0	0.0	15.0
2. Equipment ^c	32.0	0.0	32.0
3. Training Workshops ^d	80.0	40.0	120.0
4. Surveys ^e	0.0	80.0	80.0
5. Miscellaneous Administration and Support Costs ^f	0.0	10.0	10.0
6. Contingencies	40.0	25.0	65.0
Total	367.0	233.0	600.0

^a Financed by the Poverty Reduction Cooperation Fund of the Government of the United Kingdom of Great Britain and Northern Ireland. The cost estimates are in accordance with the budget matrix submitted to Department for International Development of the Government of the United Kingdom of Great Britain and Northern Ireland (DFID) in August 2002 as attachment to the technical assistance (TA) concept paper.

^b International consultants are budgeted at \$16,000 per month (part of their work will be in their home office). Domestic consultants are budgeted at \$3,000 per month.

^c The equipment will consist of five Pentium IV computers with accessories, one high-speed scanner, and software. Three computers will be turned over to participating developing member country (DMC) agencies upon completion of the TA. The last one, as well as the scanner, will be assigned to the data depository at Asian Development Bank (ADB).

^d This will finance the organization of four workshops in DMCs and one at ADB headquarters. At least 100 participants are expected. The budget will cover costs including the editing and duplication of technical reports and reference and training manuals.

^e The budget will finance the implementation of four pilot household surveys.

^f This will consist mainly of administrative and logistic support provided by national agencies (statistics offices, policy and planning divisions, and project implementation agencies).

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE

A. International consultants

1. International Consultant in Poverty Analysis (2 person-months)

1. The consultant will be an economist or statistician with extensive experience in quantitative poverty analysis and monitoring in developing member countries (DMCs). The consultants will work in close cooperation with the Development Indicators and Policy Research Division (ERDI), and be responsible for

- (i) reviewing poverty reduction partnership agreements (PRPAs) signed by the Asian Development Bank (ADB) and governments in DMCs (or the latest PRPA draft where these are in an advanced stage of development but not signed);
- (ii) summarizing past and current ADB technical assistance (TAs) with outputs relevant to this TA;
- (iii) writing a short note on the poverty lines and measurements used in each PRPA and country strategy and program (CSP);
- (iv) assessing existing PRPA and CSP monitoring arrangements, in particular the relationship between the list of indicators to be monitored and the priority areas of action identified in the PRPA and CSP, as well as the availability of timely and relevant data for the listed monitoring indicators; and
- (v) writing a report synthesizing the findings of the country notes; the report will focus on recommendations for ways of improving the analysis and monitoring of poverty in PRPAs and selected CSPs.

2. International Consultant in Applied Microeconomic Modeling (3 person-months)

2. The consultant will be an economist with extensive experience in applied modeling in developing countries. The consultant will work in close cooperation with ERDI, with domestic consultants in four selected DMCs (see B.3 below), and with ADB project missions to ensure relevance of the protocols. The consultant will be responsible for

- (i) adapting existing analytical protocols (obtained from academic and international organizations sources) using recent data from DMCs;
- (ii) adding distributional analysis to existing models lacking this aspect of analysis, with particular emphasis on development of applied microeconomic models suited to analysis of the effect of social expenditures (e.g., education, health) on poverty;
- (iii) developing the corresponding documentation and training material;
- (iv) providing guidance to the three domestic consultants; and
- (v) facilitating workshops on the use of these protocols.

3. International Consultant in General Equilibrium Modeling (3 person-months)

3. The consultant will be an economist with extensive experience in applied modeling in developing countries. The consultant will work in close cooperation with ERDI and domestic consultant in three selected DMCs, and be responsible for

- (i) networking with national and international research institutions (universities, international and national economic research organizations) to identify and acquire social accounting matrixes, multimarket, and computable general equilibrium models available for DMCs;
- (ii) updating existing models in selected DMCs using current data;
- (iii) undertaking model validation through sensitivity and consistency analysis;
- (iv) modifying existing models to elevate their focus on distributional issues and assessment of the effects of policy change on the poor;
- (v) developing detailed documentation and training material, with particular emphasis on proper interpretation of model results; and
- (vi) facilitating workshops on the use of these models for poverty impact assessment.

4. International Consultant in Sampling and Survey Methods (3 person-months)

4. The consultant will be a statistician with extensive experience in sampling techniques and survey data collection methodologies. The consultant will assist ERDI in designing tools for poverty monitoring including development of survey instruments. The specific responsibilities are

- (i) writing a manual on sampling methods for implementation of household baseline and follow-up surveys at project-level (the manual will advise on the determination of sample sizes, updating of sample frames, procedures for drawing samples, computing and using of sample weights, techniques for adjusting data to nonresponse problems, and computation of sampling errors);
- (ii) assisting ERDI in designing standard baseline and follow-up survey questionnaires, including a core questionnaire and sector-specific modules;
- (iii) developing standard data processing programs for data entry, consistency checks, tabulation, and analysis, based on the standard survey questionnaires;
- (iv) developing standard tabulation and analysis plans; and
- (v) writing a manual on methods of nonincome poverty assessment (by poverty proxies and multiple regression techniques, and use of principal components analysis; nonincome poverty assessments are based on criteria such as access to potable water, housing conditions, ownership of assets, access to social services, etc., and not on financial or monetary income or wealth).

B. Domestic consultants

1. Domestic Consultant in Survey Data Processing and Documentation (6 person-months)

5. The consultant will be a statistician or programmer with extensive experience in household survey data processing (preferably household income and expenditure surveys and/or living standards measurement surveys). The consultant will assist ERDI in setting up a survey data depository at ADB headquarters. The responsibilities will be to assess, standardize, and properly document survey datasets provided by ERDI. Specific duties include

- (i) collecting and scanning survey questionnaires and other available technical documentation (interviewers' and supervisors' manuals, sampling methodologies, and other relevant technical documents);
- (ii) converting all data sets into standard formats;
- (iii) implementing data validation and completeness check, and producing a summary report on data quality (including recommendations and warnings to secondary users);
- (iv) documenting computed and aggregated variables;
- (v) writing data dictionaries in compliance with the data documentation initiative standards;
- (vi) cataloguing datasets, in compliance with the data documentation initiative standards;
- (vii) generating standardized subsets of data from each data set (the content of the subset will be defined by ERDI); and
- (viii) preparing (with ERDI staff) a training manual on guidelines on documentation, preservation, and dissemination of survey data.

2. Domestic Consultants (4) in Applied Microeconomic Modeling (8 person-months)

6. Four domestic consultants specialized in applied microeconomic modeling will be recruited (one per country in four DMCs) for a duration of 2 months each. They will be economists with experience in applied microeconomic modeling in their countries. They will work in close cooperation with the international consultant in applied microeconomic modeling and the international consultant in general equilibrium model (A.2. and A.3.). Their main responsibilities will be

- (i) collecting data required for updating existing microeconomic models in their respective countries, and
- (ii) helping to organize training on modeling during the dissemination workshops.

7. The consultants will also assist the international consultants in

- (i) networking with national institutions to identify and acquire available social accounting matrixes, multimarket, and computable general equilibrium models;
- (ii) obtaining the necessary parameter estimates for their countries;
- (iii) updating existing analytical models using recent data;
- (iv) undertaking model validation through sensitivity and consistency analysis; and
- (v) facilitating workshops on the use of these protocols.

3. Domestic Consultants (4) in Poverty Monitoring Survey (12 person-months)

8. Four domestic consultants will be hired for 3 months each, to assist ADB in conducting poverty monitoring surveys on a pilot basis. The consultants should have a strong statistical background and expertise in sample survey data collection and processing. They will work under the supervision of ERDI, and will

- (i) develop household and community survey questionnaires by customizing the standard questionnaires provided in ERDI's survey tools;
- (ii) develop data entry, data editing, and data tabulation programs by customizing the standard programs and tabulation plan provided in ERDI's survey tools;
- (iii) train data collection and data entry personnel;
- (iv) supervise data collection fieldwork;
- (v) supervise data entry and data editing activities;
- (vi) facilitate the production, control, and analysis of statistical tables; and
- (vii) prepare a technical report that places particular emphasis on the assessment of the survey tools provided by ERDI.